

STRIPS & PLANKS PREFINISHED

INSTALLATION INSTRUCTIONS



Important

Carefully read installation instructions and warranty before starting your flooring installation.

If you find any defects on your strips or planks or if any problem occurs during installation that will alter your flooring, please stop immediately and call your dealer.

When installed or altered, strips or planks are considered accepted by the installer and/or owner.



GROLEAU

WOOD. PURE AND SIMPLE.

NECESSARY TOOLS:

Here is a list of tools and material you may have to use during installation:

TOOLS :

- Moisture meter (for your sub-floor)
- A square
- A level
- Nail punch
- Putty knife
- Carpenter pencil
- Felt paper (vapour barrier) with no tar
- Sandpaper (if necessary)
- Crowbar
- Reversing tongue (if necessary)
- Levelling compound (if necessary)
- Motorized mitre saw
- Measuring tape
- Chalk line
- Hand saw
- Vacuum cleaner
- Regular hammer
- Levelling bar
- Stapler
- Floor screws (if necessary)
- Hardwood glue (if necessary)
- Calculator (if necessary)
- Safety goggles
- Table saw

Note: Make sure all saws are equipped with high quality finishing blades in good condition to ensure a perfect cut.

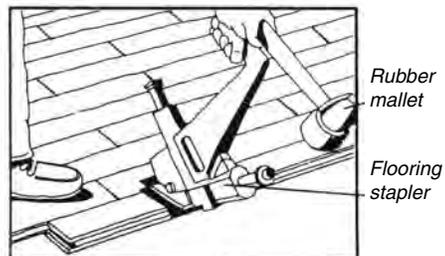
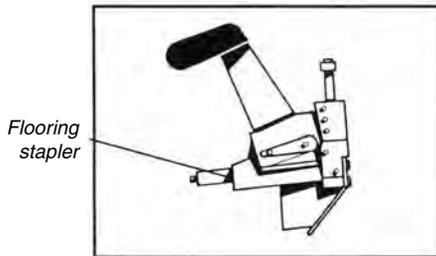
REQUIRED TOOLS FOR MANUAL INSTALLATION:

- Manual Flooring Cleat Nailer
- L Cleat, 1 3/4" to 2"
- Spiral Nail, 2" to 2 1/2"
- Spiral Finishing Nail, 1 3/4" to 2"
- Drill with 3/32" Bit

Note: The finishing nails are for the first and last row. The spiral nails are used when the manual cleat nailer cannot be used. (The spiral nail holds better than the finishing nail.)

REQUIRED TOOLS FOR INSTALLATION WITH PNEUMATIC TOOLS:

- Air Compressor
- L Cleat or Staples, 1 3/4" to 2"
- Finishing Nails, 1 3/4" to 2", Gauge of 15 or 16
- Pneumatic Flooring Cleat Nailer or Pneumatic Flooring Stapler
- Finishing Nailer, Gauge of 15 or 16



STORAGE:

When storing the floor for a long period of time, you must keep the product in its original package (do not open any boxes). The flooring must be kept in a dry and humidity free area, the relative humidity surrounding the product must be between 40% and 50%. When leaving the factory, the flooring has a 6% to 8% humidity level and is very sensitive to humidity exposure. Storing the hardwood floor in a badly conditioned room can permanently damage the product.

When you are ready for installation, open the boxes in the prepared room and leave it for a 72 hour acclimatization period. The room to be covered with hardwood flooring must meet minimum requirement to ensure product protection, carefully read preparation recommendations

PREPARATION:

SUB-FLOOR REQUIREMENT

Sub-floor humidity level must be equal or less than 11%. If it is over this level, you must take arrangements to lower the humidity level before bringing the product into the room. If for some reason your sub-floor humidity level is too high, to remedy, you can increase heating and ventilation in the room until humidity lowers at recommended level.

Sub-floor must be made of plywood or OSB (oriented strand board). Do not install your floor over MDF panels, made of pressed wood or glue particles. The sub-floor must be adequately screwed at every 6" to avoid creaking sounds.

Minimum thickness of the sub-floor varies depending on inter-joice distance. The structure of the house and joice installation must be made according to the construction norms that are valid at the date the installation is made.

Comparison between plywood and OSB, depending on inter-joyce distance

Distance between joyces, center to center.	Plywood	O.S.B
Less than 12" (30.5cm)	5/8" (16mm)	5/8" (16mm)
From 12" (30.5cm) to 16" (40.6cm)	5/8" (16mm)	3/4" (19mm)
From 16" (40.6cm) to 19.2" (48.2cm)	3/4" (19mm)	Not recommended
More than 19.2" (48.2cm)	Not recommended	Not recommended

Your hardwood floor must be installed perpendicularly to your joyces or at a 45° angle.

Never install a solid hardwood floor under ground level.

Never install your hardwood flooring over radiant heated floor.

Never install your hardwood flooring directly over concrete; it must be installed on a standard plywood sub floor. A waterproof membrane must be laid over entire concrete floor surface before installing the plywood sub floor.

The sub floor must be smooth and levelled, all bumps must be levelled off and sunken areas must be filled with levelling compound.

Carefully inspect your sub floor before starting the hardwood flooring installation. It must be stable, smooth and levelled. If the sub floor is damaged by humidity or if it has irregularity impossible to repair or has a structural weakness, it must be replaced before installation.

BUILDING REQUIREMENT

The hardwood flooring installation should be the last step of the building construction or renovation.

All concrete work should be done 45 days prior to bringing the flooring into the building.

Ensure that all gypsum and painting jobs are dried for a minimum of 72 hours before bringing the products into the building.

The area that will be covered with the hardwood floor must be conditioned for at least 7 days prior to starting installation. The heating system must be operational, the room and the material inside it must be maintained at 21°C (70°F).

The building's relative humidity must be controlled and maintained at a level of 40% to 50% before and after bringing the products in.

FINAL PREPARATION

All baseboards must be removed and put on the side until installation is completed.

Door casings must be trimmed at 3/4" (19mm) from sub floor level where it will be covered with your hardwood floor. This will permit you to insert your strips underneath the door casing. It is possible that you will have to trim the door, since the floor will be 3/4" (19mm) higher.

Make sure the gypsum is installed at 3/4" (19mm) from sub floor level. If it's lower, we suggest that you trim it at 3/4" (19mm) from sub floor level.

Cover the sub floor with a felt paper (vapour barrier) with no tar. The felt paper is used to slow down the humidity transfer between the two surfaces. It should be fixed with 1/4" (6.35mm) or 1/2" (12.7mm) staples directly on the sub floor. Each rank of felt paper must be laid to overlap at least 1/4" (6mm) over the last rank to ensure humidity transfer is prevented at its best.

Draw a plan of the installation; find the starting point and the orientation of the floor.

Leave a 3/4" (19mm) space between the walls and the floor all around the room. This space is left for expansion of the flooring. You must also leave a 3/4" (19mm) expansion space between the floor and all fixed objects on the sub floor (poles, columns, etc...).

The surface must be kept clean. You should remove all dust, dirt, nails, staples, adhesive, drywall compound or any other material that will delay installation or make the flooring unstable or cause permanent damage to it.

INSTALLATION:

Always perform installation at daylight.

Drawing guidelines:

To obtain optimum look and execute work correctly, make sure that the room's wall angles are perfectly square. This will permit you to verify alignment of the structure in place.

You are now ready to draw your guidelines with the chalk line. This line will serve to align your first rank of strips or planks.

Standard installation:

With a standard installation, the guideline is parallel to the wall. The space between the wall and the guideline is the sum of the strip or plank width added to the expansion space.

Ex: Strips of 2 1/4" (57mm)

Strips width	+ Expansion space	= Distance from wall
2 1/4"	3/4"	3"
57mm	19mm	76mm

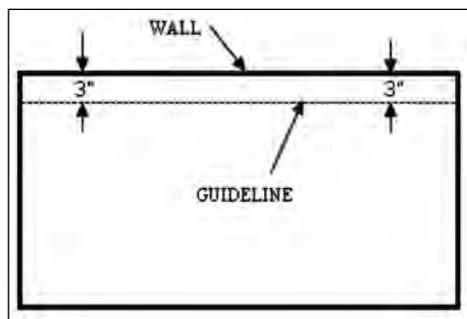


FIGURE 1

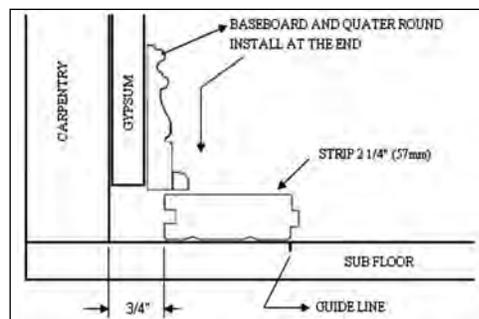


FIGURE 2

45° installation:

For a diagonal installation (45°), we recommend tracing your guide line as long as possible.

Make a square pattern (4 sides of the same length), then trace a line from one corner to the opposite corner.

You should check that the room is perfectly square. To verify use the 3-4-5 or ($A^2+B^2=C^2$) rule.

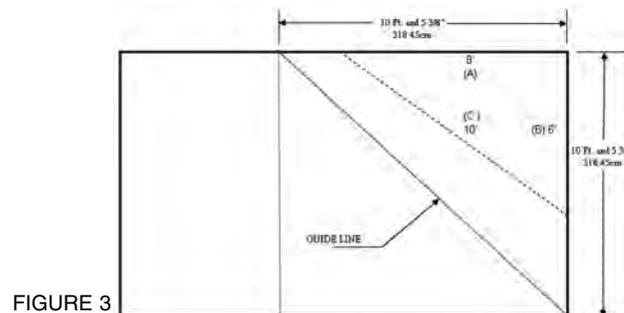


FIGURE 3

Installation of the first row:

The first step is to find strips that are long and as straight as possible. Install the first row aligning the bottom of the strip with the guide line. (See figure 2 and 6)

When you finish a row, cut the last strip of the row at the correct length (make sure you calculate the expansion space). If the exceeding portion of the strip is long enough, start the next row with it.

For an adequate installation, alternate end of strip joint's alignment between adjacent rows. Keep a minimum of 6" (15cm) distance between ends of strips joint alignment. (See figure 4 and 5)

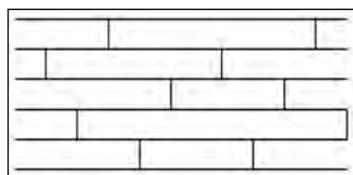


FIGURE 4 : Adequate installation

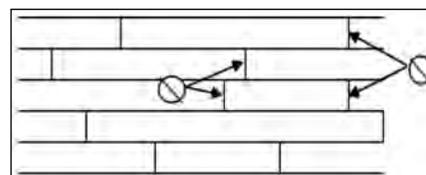


FIGURE 5 : Inadequate installation

Standard installation (Parallel to the wall):

To fix the first row you need to drill holes on the top of the strips at 1/2" (13mm) from the border of the strip on the female side. You have to drill a hole at every 10" (25cm) center-to-center (minimum of 2 holes per strip). You also must drill holes at 45° over the tongue on the male side of the strip. Holes must be drilled at every 10" (25cm) center-to-center (minimum of 2 holes per strip).

Once you have completed drilling the holes, fix your strips using spiral finishing nails into the drilled holes. Make sure your strips are perfectly aligned with the guide line before fixing. Use your nail punch to avoid damaging the floor with your hammer and getting the nails perfectly in.

For the second row installation, only drill holes at 45° over the tongue on the male side of the strip. Drill a hole at every 10" (25cm) center-to-center (minimum of 2 holes per strip). Once you have completed drilling the holes, fix your strips using spiral finishing nails into the drilled holes. Use the nail punch to correctly insert the nails inside the strip and to avoid damaging the flooring with your hammer (Do not over punch the nail inside the hole, you could permanently damage the strips).

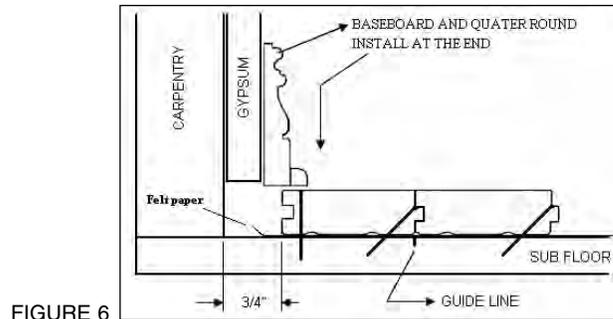


FIGURE 6

Installation at 45°:

Before installing the first row of strips, you should fix a holding block (blocking lath) in the middle of your sub floor. Make sure the holding block is well fixed and that it is at 45° (aligned with the guide line). Once this is done, install the first row; make sure that the female grooved side of the strip is pressed against the holding block. Fix the strip on the male tongued side with the hardwood floor nailer / hammer.

You can remove the holding block when there are two rows of strips installed. Put a reversing tongue into the female groove of the first row installed. You must nail / staple the reversing tongue with the hardwood floor nailer / stapler. You can now install your floor in both directions of the room.

Installing subsequent rows of strips:

For subsequent rows, use your hardwood floor nailer / stapler to fix the strips. Always observe the expansion space rule and alignment of end of strips joints.

Distance between each nail / staple in the same row should be from 8" (20cm) to 10" (25cm). Make sure you have at least 2 nails / staples on each strip. The nails / staples have to be at least 3" from the end of the strip.

Installation of the last rows of strips:

When approaching the wall, you will no longer be able to use the hardwood floor nailer / stapler. You will have to drill holes at 45° over the male tongues and fix the strips with spiral finishing nails as explained before. Always have a distance of 8" (20cm) to 10" (25cm) center-to-center between each nail from the same row (minimum of 2 nails per strip). Use the nail punch to correctly insert the nails and avoid damaging the floor with your hammer.

For the last row, you probably will have to cut the strips to adjust to the correct width and cover the remaining portion. You must leave 3/4" (19mm) for expansion space. Drill holes on the top of the strips at 1/2" (13mm) from the border of the strip. You have to drill a hole at every 10" (25cm) center-to-center (minimum of 2 holes per strip). Once you have completed drilling the holes, fix your strips using spiral finishing nails into the drilled holes. Use the nail punch to correctly insert the nails inside the strip and to avoid damaging the flooring with your hammer. (See figure 7)

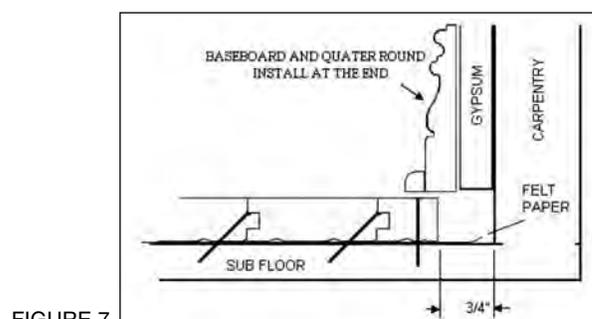


FIGURE 7

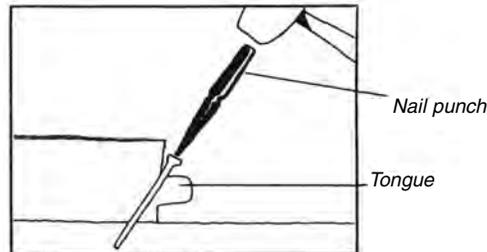
Once you have finished nailing the last row, install your baseboards, mouldings, quarter rounds and all other accessories.

PRACTICAL HINTS :

The prefinished hardwood floors require more care during installation than conventional unfinished hardwood floors. Prefinished hardwood floors are hard to repair once installed compared to unfinished hardwood floors which can be repaired before sanding and varnishing. You should take a little bit more time to install your prefinished hardwood floor to make sure it is undamaged and perfectly installed.

- Never hit the hardwood strips directly with a hammer, use a small piece of strip (with tongue and groove) as a shield to move strips into place.
- Put your tools on the non-covered part of the sub floor or on a thick piece of carton over your prefinished floor.
- Vacuum frequently to get rid of dust, dirt and small pieces of wood.
- Make sure that all pneumatic tools are working correctly; air pressure should be adjusted depending on the hardness of the hardwood floor. Nails and/or staples should not be inserted too far in the tongue of the strips, it could permanently damage it.
- For prefinished hardwood flooring we recommend the use of an adapter foot.
- Make sure that the hardwood flooring hammer base is not damaged or dirty, it should not leave marks on the hardwood flooring during installation.
- Make sure that the hardwood flooring nailer / stapler is straight and firmly applied against the strip before fixing the nail and/or staple. A bad position of the nailer / stapler could permanently damage the strip.

Make sure that all nails and staples are completely inserted into the strips, if needed, use the nail punch and hammer to make sure they're correctly inserted.



Strips with small defects or with an important colour mismatch should be put aside and installed in a place where they will be less apparent like a wardrobe. You can also use strips with a joint end defect, cut the defective portion and keep the good part to start or finish a row.

Never remove tongue or groove except for the end of strip joint to start or finish a row and for the last row. Strips must always be assembled together using the tongue and groove specifically made for that purpose, or stability and solidity may be compromised.

If there are some unused strips left after work is completed, we suggest you keep them in a proper space for eventual repairs.

If for any reason you find a defect on the strips or planks, stop the installation immediately. When installed or altered, strips or planks are considered accepted by the installer.

MAINTENANCE :

You can clean you prefinished hardwood floors using a humid rag or sponge, never let liquids sit on your floor. To avoid premature wear, place a mat at each entrance and in front of kitchen workstations as a preventive measure.

We recommend you lift your furniture to move it and to use pads under chairs and table legs. Vacuum frequently to get rid of dust and dirt like small rocks and sand that can damage the floor.

Warning : Never wax your floor. Waxing a prefinished hardwood floor is not recommended. We do not recommend the use of soaps, detergents and cleaners other than those recommended by Groleau Flooring.

- This document is a translation from the French version (Instructions de Pose, Plancher en lames Verni en Usine). If there are any doubts, the French form prevails over the English form.

For warranty details, refer to the document:

**Warranty
Strips & Planks
Prefinished**



GROLEAU

WOOD. PURE AND SIMPLE.

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